

# Oas1a/g (R-50): sc-98426

## BACKGROUND

The 2',5'- oligoadenylate synthetases (OASs) are interferon-induced proteins that play a putative role in mediating resistance to virus infection, control of cell growth, differentiation and apoptosis. OAS1, which functions as a homotetramer, is characterized by its capacity to catalyze the synthesis of 2',5'- oligomers of adenosine (2-5As). OAS1 binds double-stranded RNA and polymerizes ATP into PPP(A2'P5'A)N oligomers, activating latent RNase L which, when activated, cleaves single-stranded RNAs. This RNase L activity leads to the inhibition of cellular protein synthesis and the impairment of viral replication. OAS1, a 400 amino acid containing protein, is also important in evaluating the interferon response in RNAi studies, and is implicated in diabetes mellitus susceptibility. Oas1a and Oas1g are two of the known rodent homologs of human Oas1, which are thought to mediate cell growth, differentiation and apoptosis, as well as host resistance to viral infection.

## CHROMOSOMAL LOCATION

Genetic locus: OAS1 (human) mapping to 12q24.13; Oas1a/Oas1g (mouse) mapping to 5 F.

## SOURCE

Oas1a/g (R-50) is a rabbit polyclonal antibody raised against amino acids 309-367 mapping at the C-terminus of Oas1a of rat origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98426 X, 200 µg/0.1 ml.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

Oas1a/g (R-50) is recommended for detection of Oas1a of mouse and rat origin, Oas1g of mouse origin, and to a lesser extent, OAS1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for OAS1 siRNA (h): sc-61241, OAS1 shRNA Plasmid (h): sc-61241-SH and OAS1 shRNA (h) Lentiviral Particles: sc-61241-V.

Oas1a/g (R-50) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

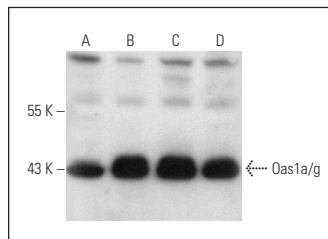
Molecular Weight of Oas1a/g: 46 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, EOC 20 whole cell lysate: sc-364187 or Neuro-2A whole cell lysate: sc-364185.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Oas1a/g (R-50): sc-98426. Western blot analysis of Oas1a/g expression in BC<sub>3</sub>H1 (A), NIH/3T3 (B), EOC 20 (C) and Neuro-2A (D) whole cell lysates.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **Oas1a (E-2): sc-365072** or **Oas1a (C-8): sc-365357**, our highly recommended monoclonal alternatives to Oas1a/g (R-50).